



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,285	11/30/2001	William E. Allen	01-403	9040

719 7590 12/18/2003

CATERPILLAR INC.  
100 N.E. ADAMS STREET  
PATENT DEPT.  
PEORIA, IL 616296490

EXAMINER
----------

LA, ANH V

ART UNIT	PAPER NUMBER
----------	--------------

2636

DATE MAILED: 12/18/2003

21

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/000,285

Applicant(s)

ALLEN, WILLIAM E.

Examiner

Anh V La

Art Unit

2636

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. §§ 119 and 120**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892) ✓
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) / /
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2,3.

- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

### DETAILED ACTION

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robert in view of Smith.

Regarding claims 1, 12, 13, 18, 19, 20, 21, 26, 28, 29, 31, 32, Robert discloses a method/apparatus for tracking the location and movement of an object 18 near a device at a site including the steps of determining a position of the device 22, 14, determining a position of the object 18, transmitting the determined position of the object from the object to the device and displaying 38 the position of the object relative to the position of the machine to an operator of the device (column 4, lines 15-65 and col. 11, lines 1-30).

Robert does not disclose the device being a machine (claim 1), removing the display of the position of the other object in response to the other object leaving the area (claim 12), a back-up alarm (claims 13, 26, 32), a work machine (claim 18), a GPS system (claims 19, 20, 21).

Smith teaches the use of a device being a machine 51, removing the display of the position of the other object in response to the other object leaving the area, a back-up alarm 25a, 25b, a work machine, a GPS system 51. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include

Art Unit: 2636

the device being a machine, removing the display of the position of the other object in response to the other object leaving the area, a back- up alarm, a work machine, a GPS system to the method of Robert as taught by Smith for the purpose of tracking the location and movement of an object.

Regarding claim 14, Robert as modified in view of Smith discloses all the claimed subject matter as set forth above in the rejection of claim 1, and further discloses a controller (col. 4, lines 15-65, col. 11, lines 1-30).

Regarding claim 2, Robert discloses an identification code of the object (col. 5, lines 1-15, col. 11, lines 1-55).

Regarding claim 3, Robert discloses display an identification 38.

Regarding claim 4, Robert discloses the identifying the object as being one of a person and mobile vehicle (col. 8, lines 25-30, col. 11, lines 1-35).

Regarding claim 5, Robert discloses tracking the movement of the machine and display the movement 38 of the machine and object to the operator of the machine and displaying the movement 38 of the machine and the object to the operator of the machine (fig. 1, 6).

Regarding claim 6, Robert discloses a DGPS (col. 4, lines 10-42).

Regarding claim 7, Robert discloses notifying the operator of the machine in response to an other object approaching the proximate area in which the machine is located (col. 10, lines 10-62).

Regarding claim 8, Robert discloses determining a position of the other object and the other object relative to the position of the machine to the operator of the machine (col. 11, lines 1-10)

Regarding claim 9, Robert discloses transmitting the positions and the identification codes of the object and the other object from the machine to the other machine and remote site (col. 11, lines 1-35).

Regarding claim 10, Robert discloses a method of determining a level of accuracy of the determined position of the object, but does not teach increasing a size of a display. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include the step of increasing a size of a display to the a method of Robert as taught by Smith for the purpose of tracking the location and movement of an object.

Regarding claim 11, Robert discloses the step of notifying the operator of the machine in response to a decrease in a level of confidence of the location of the object.

Regarding claim 15, Robert discloses a person (col. 11, lines 1-35).

Regarding claim 16, Robert discloses a mobile vehicle 18.

Regarding claim 17, Robert discloses a plurality of objects.

Regarding claim 22, Robert discloses a second position determining system 22.

Regarding claim 23, Robert discloses the second position system being a GPS system and a differential GPS system.

Regarding claims 24, 30, Robert discloses an identification code for the object (col. 5, lines 1-30, col. 11, lines 1-30).

Regarding claim 25, Robert discloses a transmitting and receiving system and an antenna (fig. 1, 6).

Regarding claim 27, Robert does not disclose two range transceiver system. It would have been obvious at the time the invention was made to a person having ordinary skill in the art to include the two range transceivers for the purpose of tracking the location and movement of an object.

Regarding claims 33, 34, 36, 37, Robert as modified in view of Smith discloses all the claimed subject matter as set forth above in the rejection of claim 1, and further discloses a controller and an ID code (col. 4, lines 15-65, col. 11, lines 1-30).

Regarding claim 35, Robert discloses the first transmitting and receiving system being portably on the vehicle (col. 8, lines 25-45).

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

D'Angelo, Wentworth, and Clerk teach monitoring systems.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh V La whose telephone number is (703) 305-3967. The examiner can normally be reached on Mon-Fri from 9:30am to 6:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffery Hofsass can be reached on (703) 305-4717. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Art Unit: 2636

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



Anh V La  
Primary Examiner  
Art Unit 2636

AI  
October 15, 2003